SCHEMATIC DIAGRAMS

NOTES:

1. Component numbers are in the following groups:

   1 — 99 Parts mounted on the charger control circuit board, head, base, battery charger, remote console top and bottom.

   100 — 199 Parts mounted on the Robot power supply and remote control transceiver circuit boards.

   200 — 299 Parts mounted on the Robot backplane and remote console logic circuit boards.

   300 — 399 Parts mounted on the Robot CPU and remote console circuit boards.

   400 — 499 Parts mounted on the I/O circuit board.

   500 — 599 Parts mounted on the base and arm motor controller circuit boards.

   600 — 699 Parts mounted on the Robot status and arm gripper circuit boards.

   700 — 799 Parts mounted on the Robot keyboard and arm gripper amp circuit boards.

   800 — 999 Parts mounted on the motor encoder and sonar encoder circuit boards.

2. All resistors are rated at 1/4-watt and have a 5% tolerance unless otherwise noted. Resistor values are in ohms (k = 1000; M = 1,000.000).

3. Capacitor values less than 1 are in μF (microfarads). All other capacitors are in pF (picofarads) unless otherwise noted.

4. ▽ This symbol indicates circuit board ground.

5. ⏚ This symbol indicates chassis ground.

6. Refer to the "Circuit Board X-Ray Views" for the physical location of parts.

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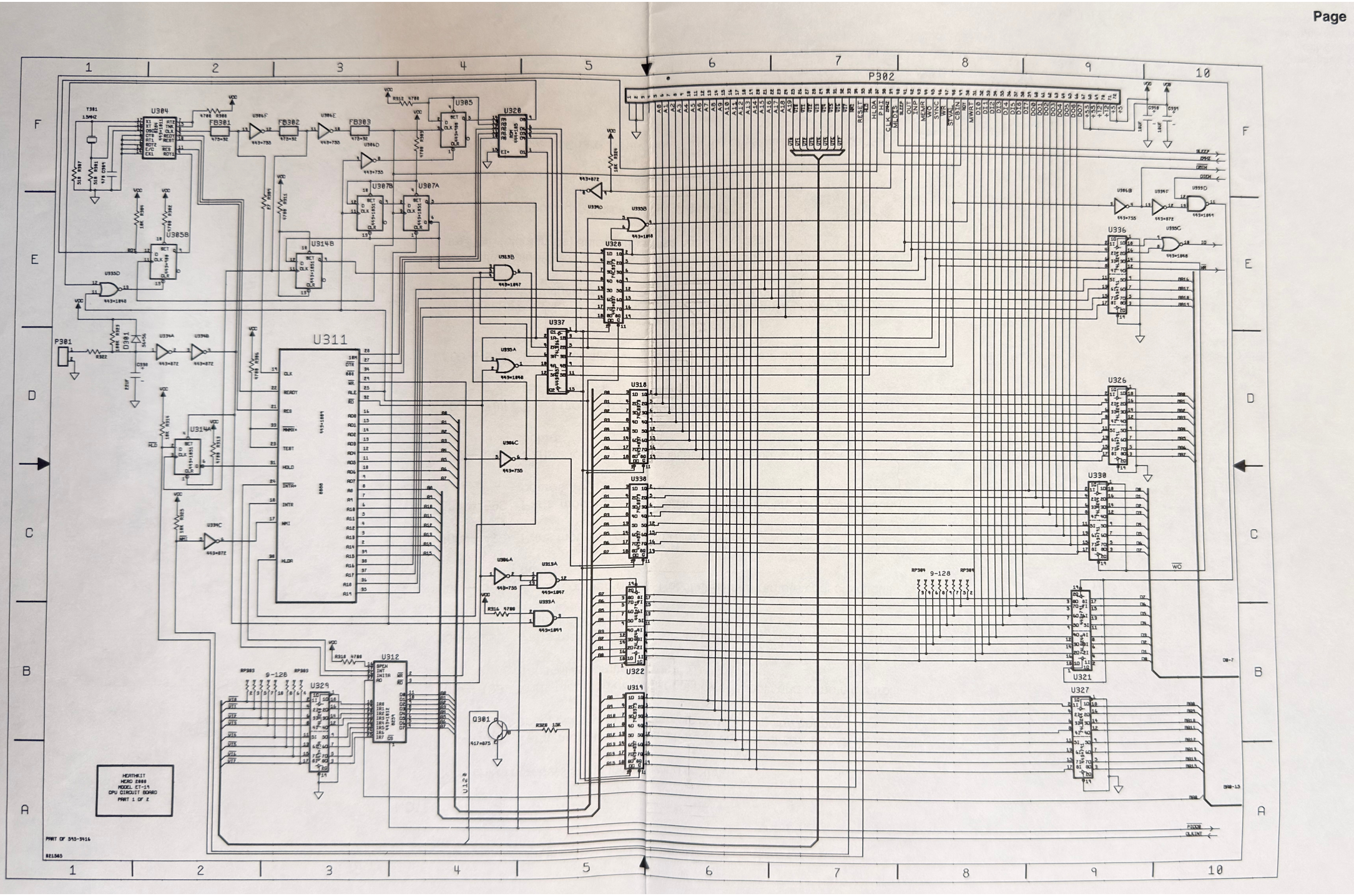
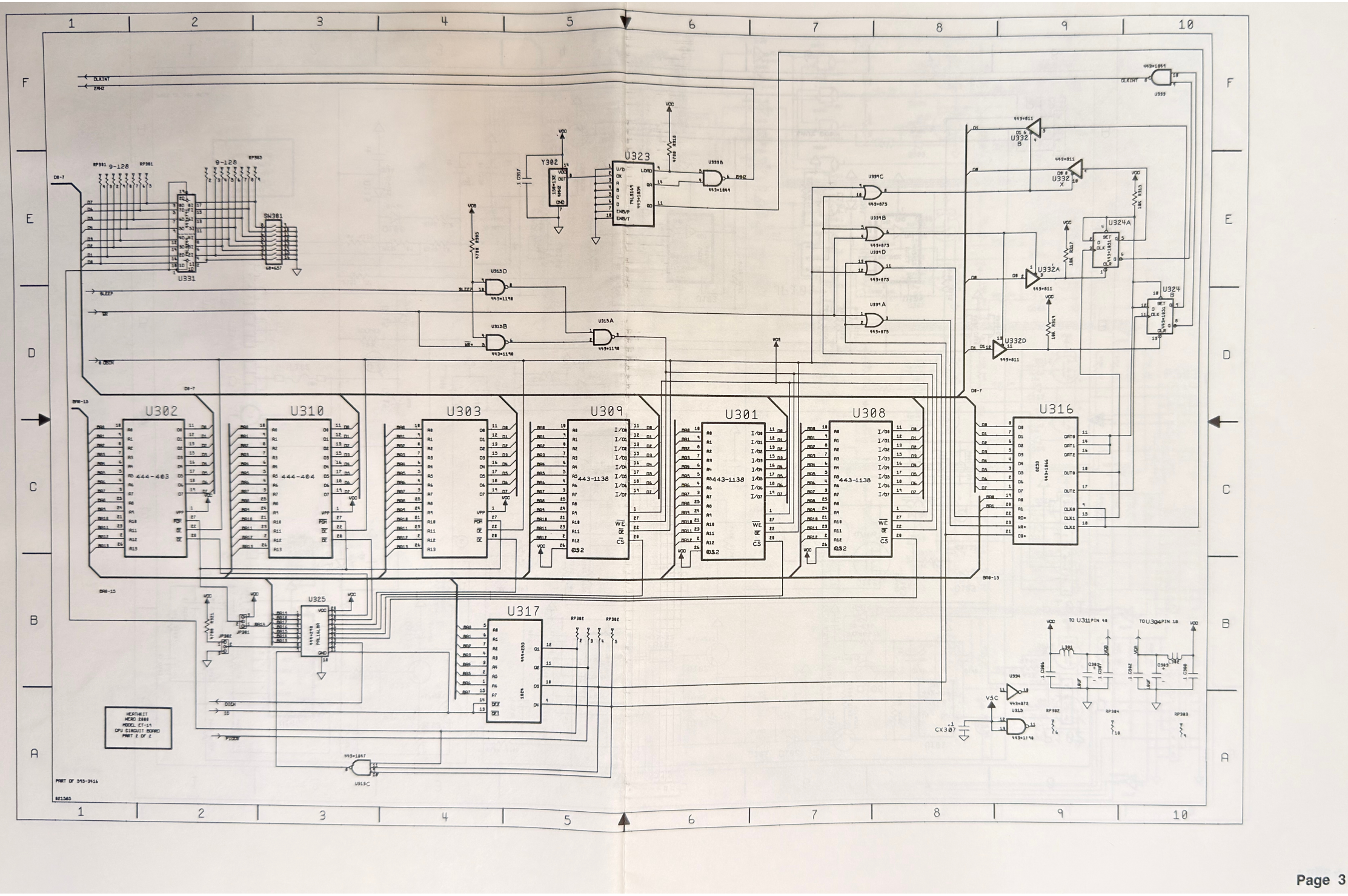
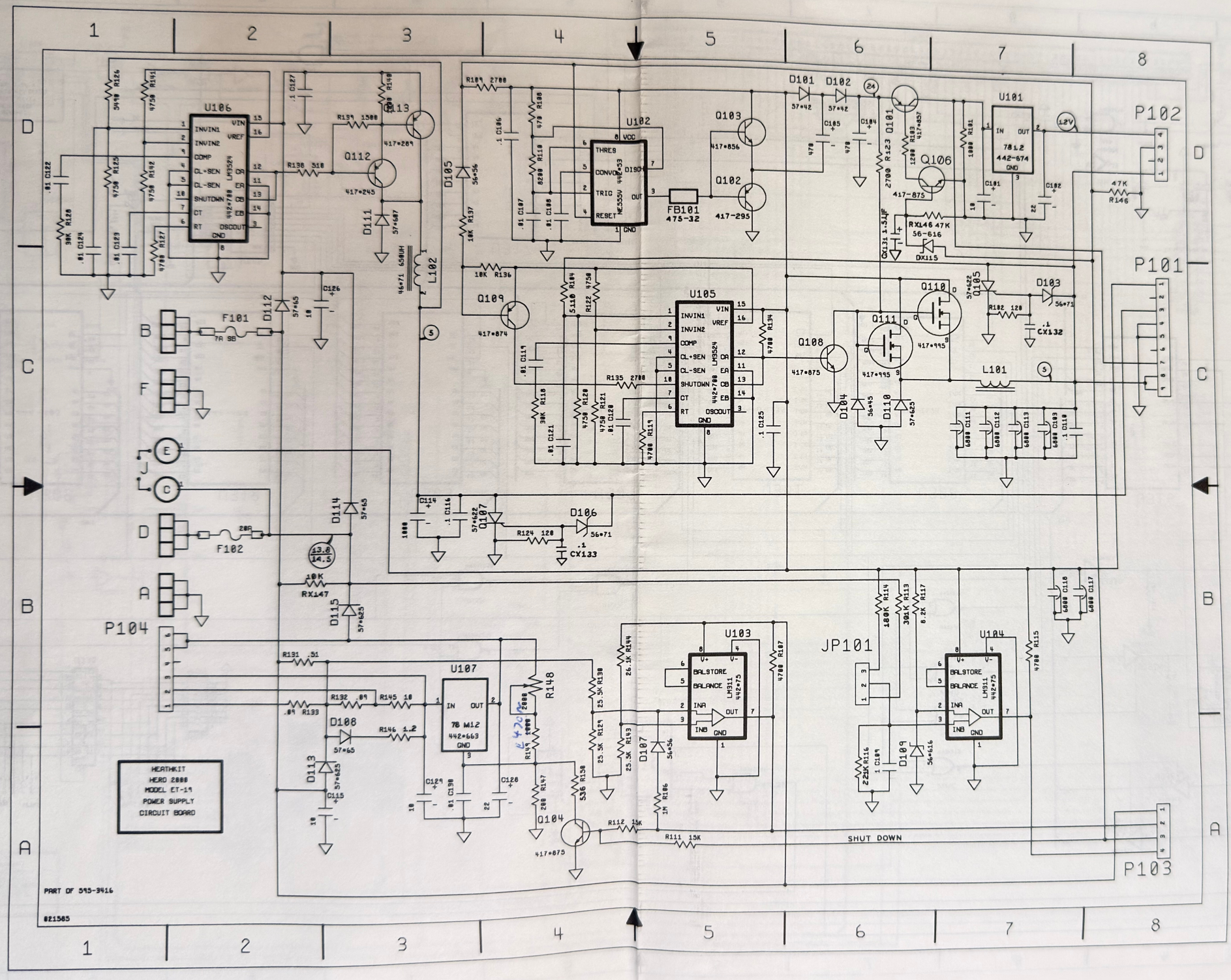
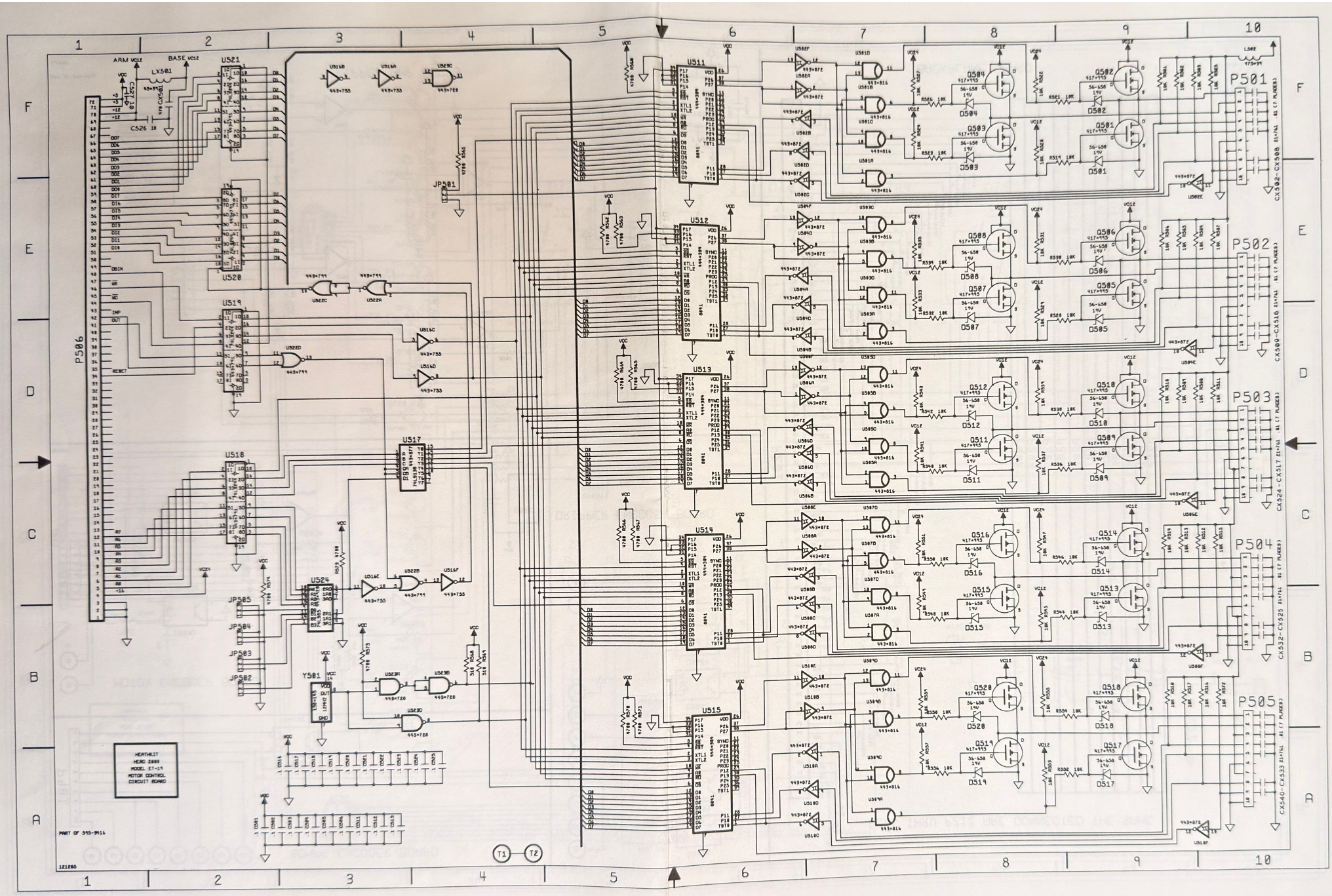
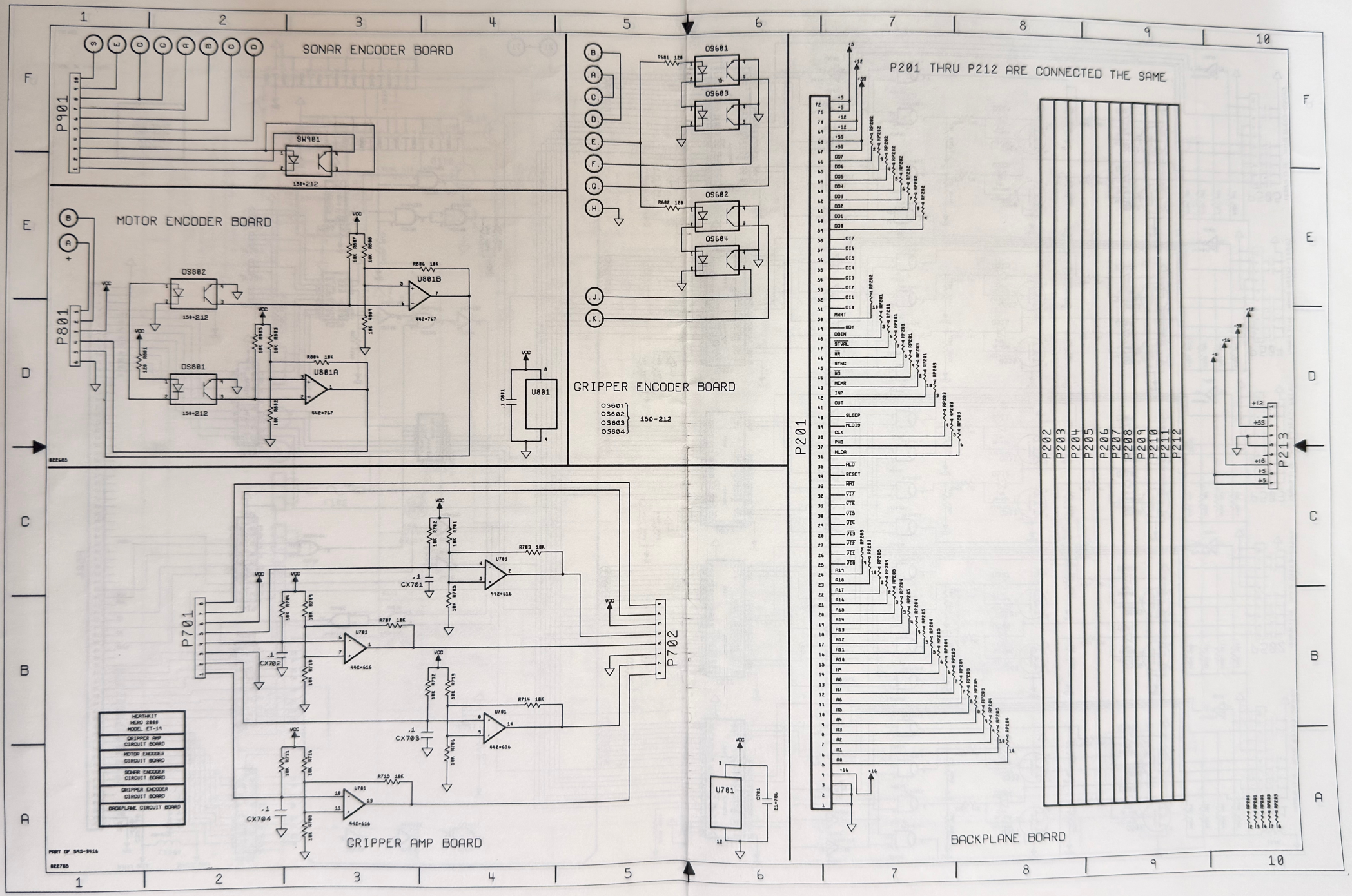
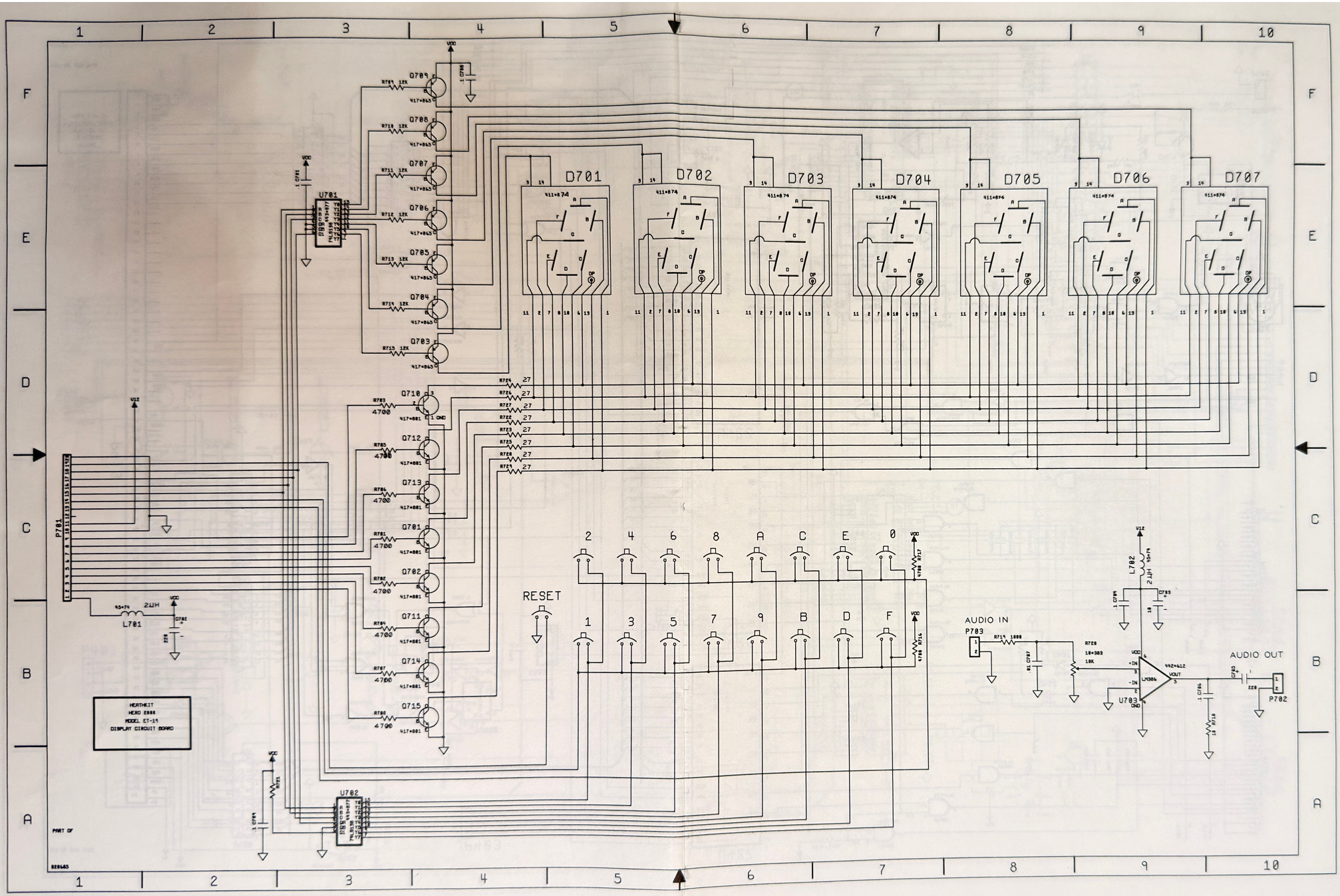

P302
U311
U304
U305
U320
U307B
U307A
U314B
U305B
U314A
U312
U329
U328
U337
U316
U338
U322
U319
U336
U326
U330
U321
U327
Q301
P301
9-128
HEATHKIT
HDAG 8080
MODEL ET-19
CPU CIRCUIT BOARD
PART 1 OF 2
PART OF 545-3916
821565

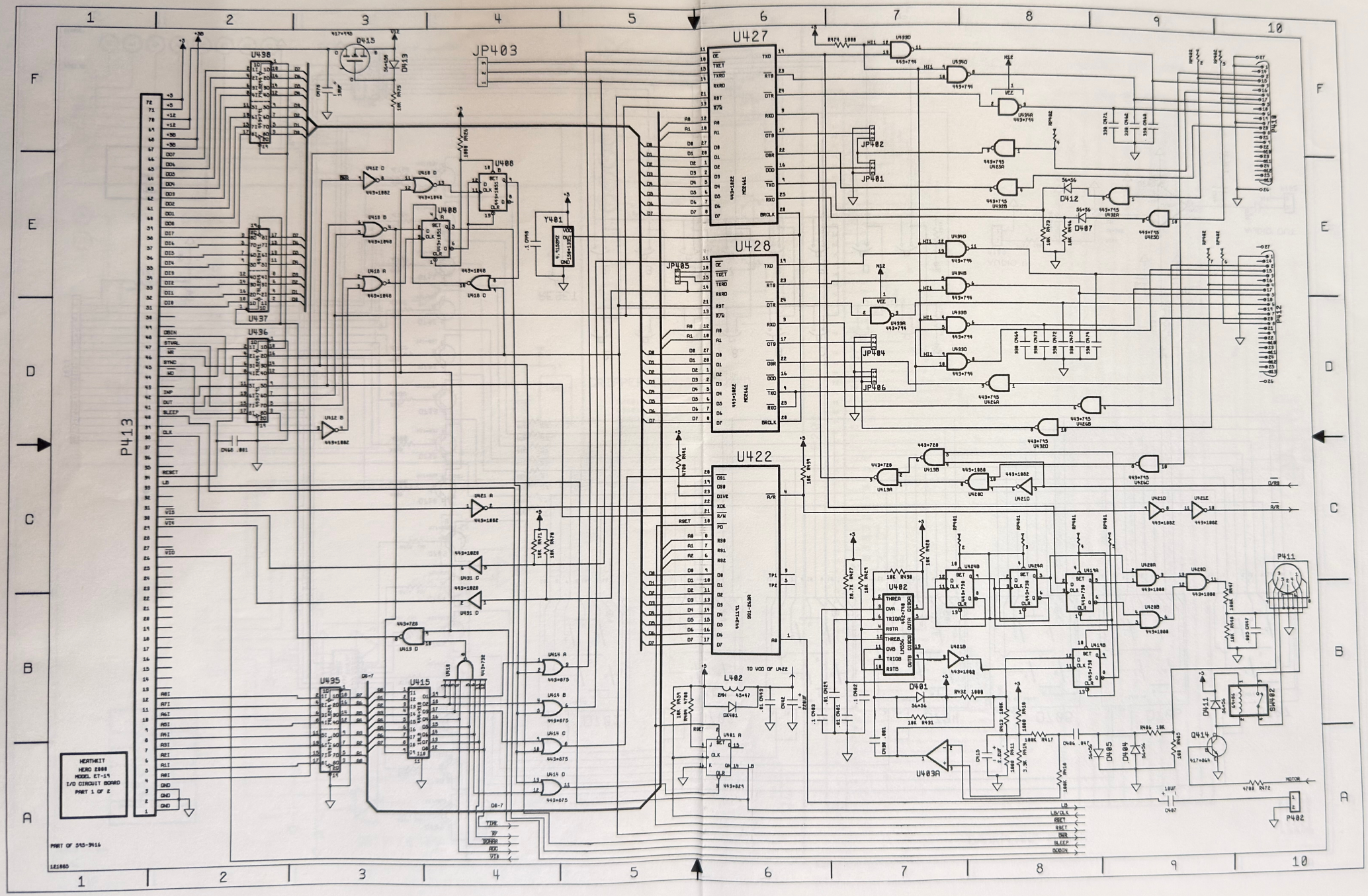

U331
SW301
U323
Y302
U315D
U315B
U315A
U332B
U332X
U332A
U332D
U324A
U324B
U302
U310
U303
U309
U301
U308
U316
U325
U317
U313C
U313A
U394
HEATHKIT
HERO 2000
MODEL ET-18
CPU CIRCUIT BOARD
PART 2 OF 2
PART OF 595-3414
821565

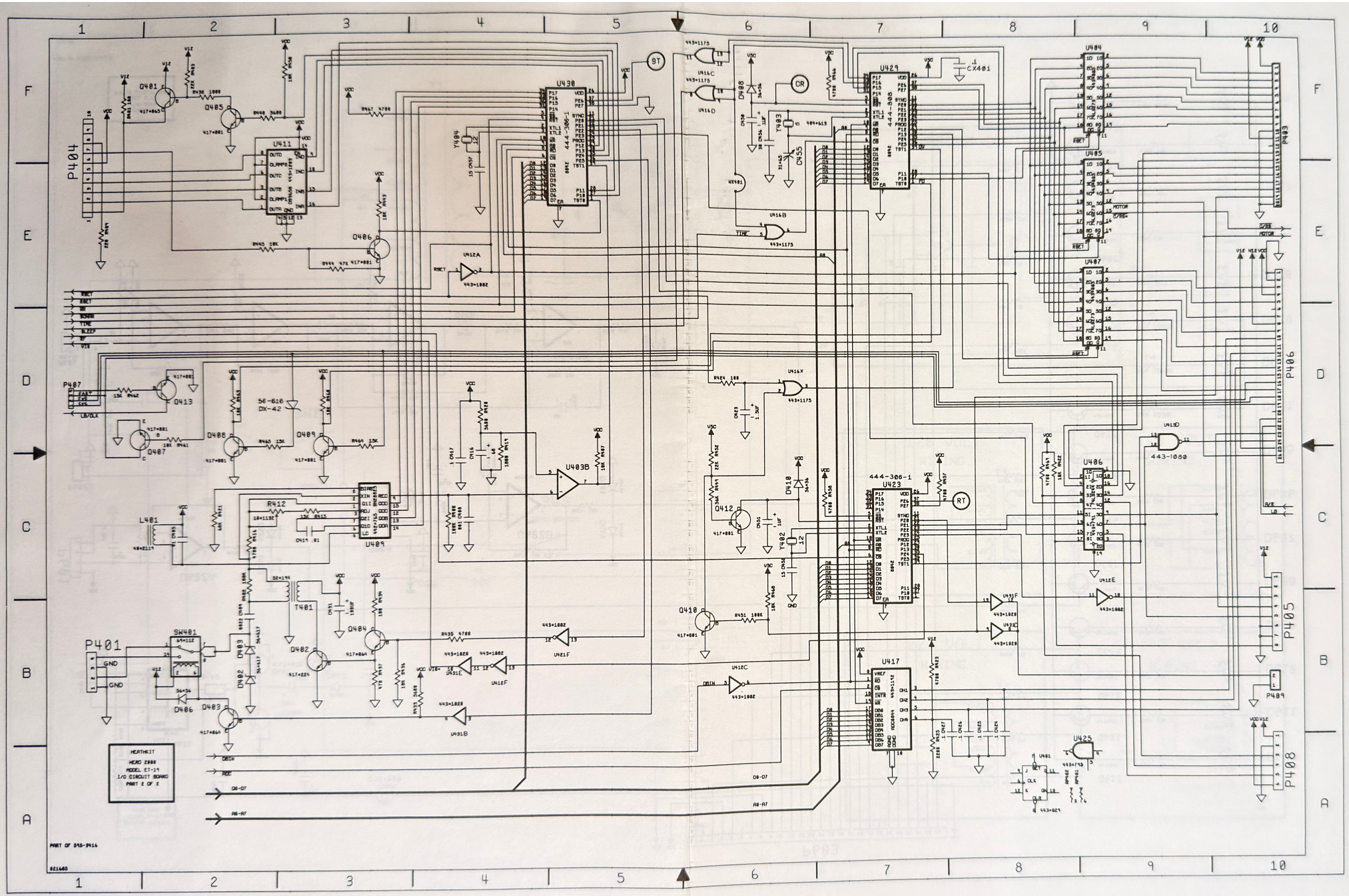

HEATHKIT
HERO 2000
MODEL ET-19
POWER SUPPLY
CIRCUIT BOARD
PART OF 595-3416
821585
SHUT DOWN
U106
U102
U105
U107
U103
U104
U101
Q112
Q103
Q102
Q106
Q109
Q108
Q110
Q111
Q107
Q104
D101
D102
D103
D104
D105
D106
D107
D108
D109
D110
D111
D112
D113
D114
D115
F101
F102
FB101
L101
L102
P101
P102
P103
P104
JP101


HEATHKIT
HERO 2000
MODEL ET-19
MOTOR CONTROL
CIRCUIT BOARD
PART OF 545-3916
121265
P506
P501
P502
P503
P504
P505
U511
U512
U513
U514
U515
U517
U518
U519
U520
U521
U524
Y501
JP501
JP502
JP503
JP504
JP505
LX501
C526 18
T1
T2


SONAR ENCODER BOARD
P901
SW901
150-212
MOTOR ENCODER BOARD
P801
OS802
OS801
U801B
U801A
442-767
U801
GRIPPER ENCODER BOARD
OS601
OS602
OS603
OS604
150-212
P201 THRU P212 ARE CONNECTED THE SAME
P201
P202
P203
P204
P205
P206
P207
P208
P209
P210
P211
P212
P213
BACKPLANE BOARD
P701
P702
U701
442-616
CX701
CX702
CX703
CX704
GRIPPER AMP BOARD
HEATHKIT
HERO 2000
MODEL ET-18
GRIPPER AMP CIRCUIT BOARD
MOTOR ENCODER CIRCUIT BOARD
SONAR ENCODER CIRCUIT BOARD
GRIPPER ENCODER CIRCUIT BOARD
BACKPLANE CIRCUIT BOARD
PART OF 595-3916
822785


D701
D702
D703
D704
D705
D706
D707
Q709
Q708
Q707
Q706
Q705
Q704
Q703
Q710
Q712
Q713
Q701
Q702
Q711
Q714
Q715
U701
U702
P701
L701
L702
RESET
2 4 6 8 A C E 0
1 3 5 7 9 B D F
AUDIO IN
P703
AUDIO OUT
P702
U703
LM384
HEATHKIT
HERO 2000
MODEL ET-18
DISPLAY CIRCUIT BOARD
PART OF


HEATHKIT
HERO 2000
MODEL ET-19
I/O CIRCUIT BOARD
PART 1 OF 2
P413
JP403
U427
U428
U422
U402
U403A
U408
U435
U415
U436
U437
U438
Y401
L402
D401
D412
D487
Q414
P411
P402
P412
SW82
MOTOR


HEATHKIT
HERO ZENITH
MODEL ET-18
I/O CIRCUIT BOARD
PART I OF I
P401
P404
P405
P406
P408
P487
P489
U411
U429
U430
U423
U417
U425
U403B
U489
U486
U487
U484
U485
U491
U492
U493
U494
U495
U496
U497
U498
U499
U4A0
U4A1
U4A2
U4A3
U4A4
U4A5
U4A6
U4A7
U4A8
U4A9
U4B0
U4B1
U4B2
U4B3
U4B4
U4B5
U4B6
U4B7
U4B8
U4B9
U4C0
U4C1
U4C2
U4C3
U4C4
U4C5
U4C6
U4C7
U4C8
U4C9
U4D0
U4D1
U4D2
U4D3
U4D4
U4D5
U4D6
U4D7
U4D8
U4D9
U4E0
U4E1
U4E2
U4E3
U4E4
U4E5
U4E6
U4E7
U4E8
U4E9
U4F0
U4F1
U4F2
U4F3
U4F4
U4F5
U4F6
U4F7
U4F8
U4F9
U500
U501
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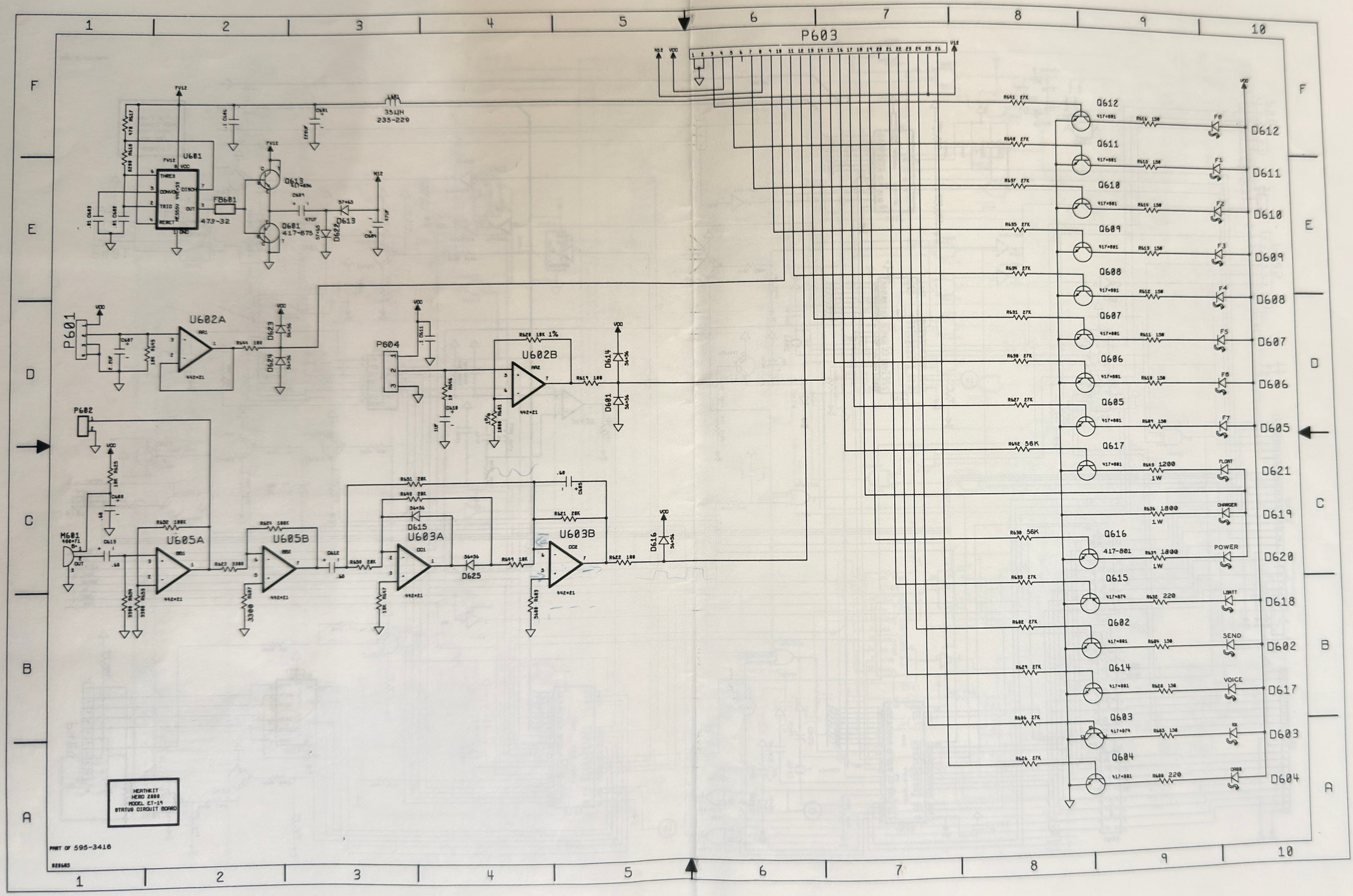
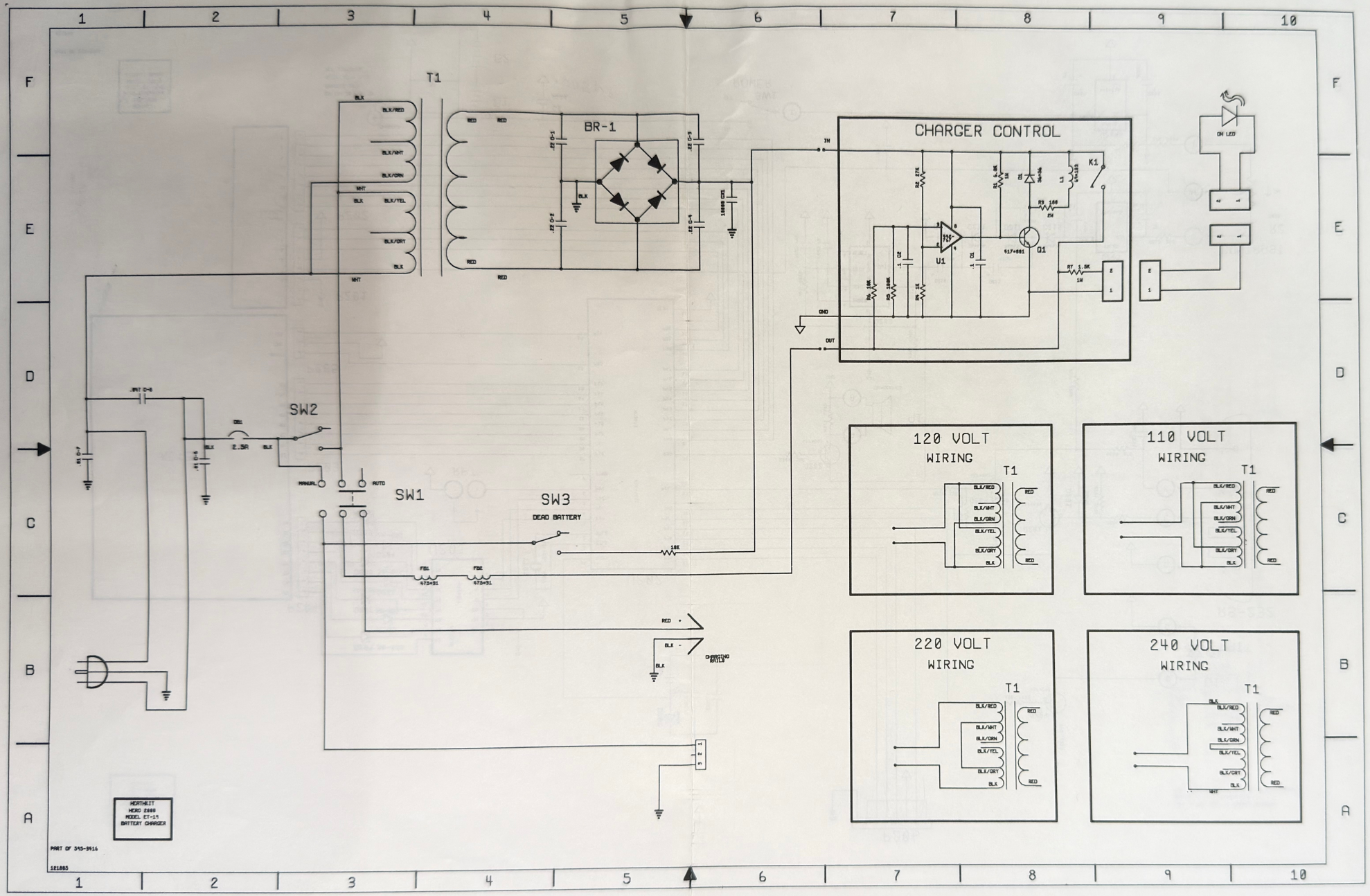
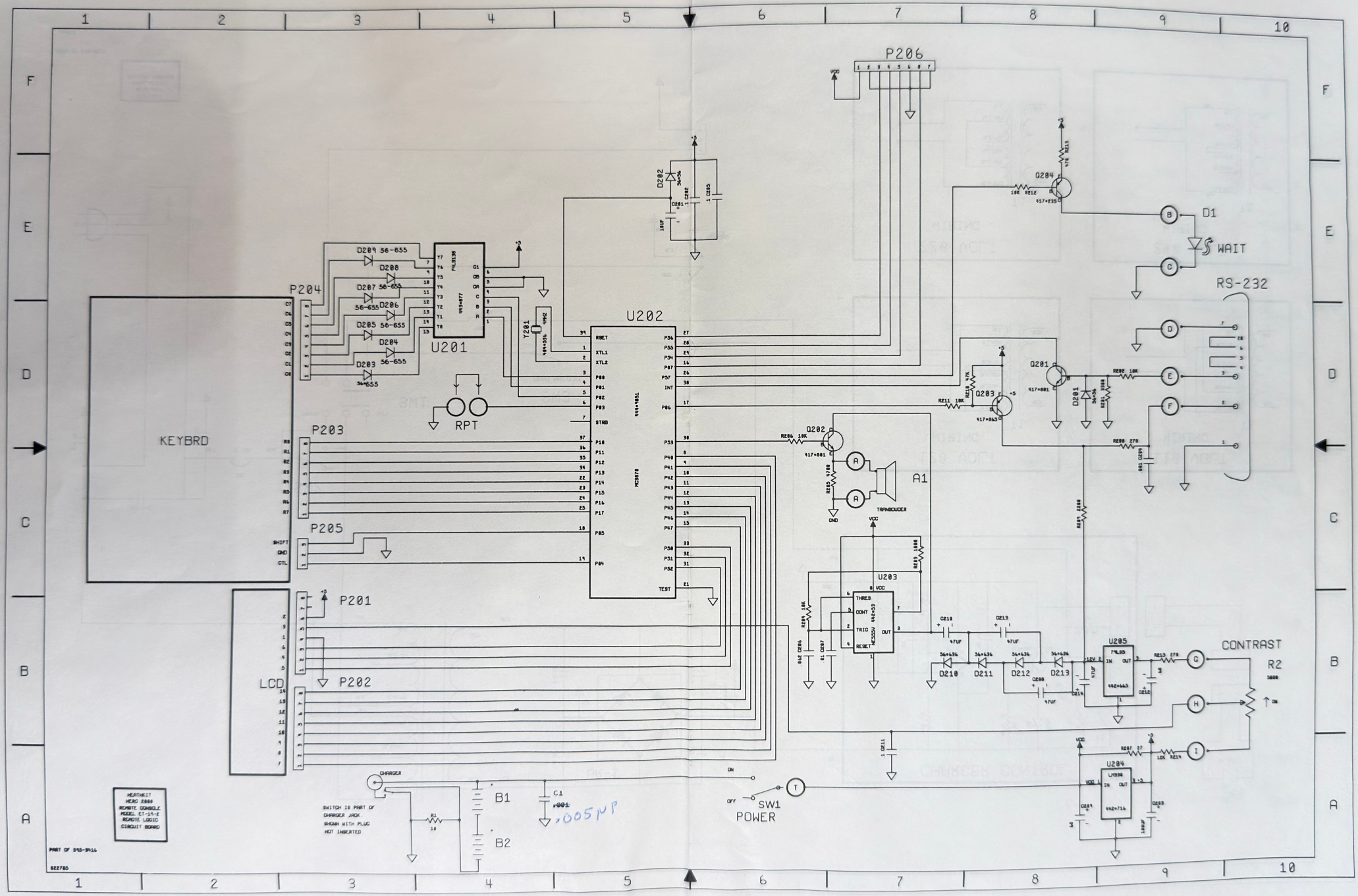
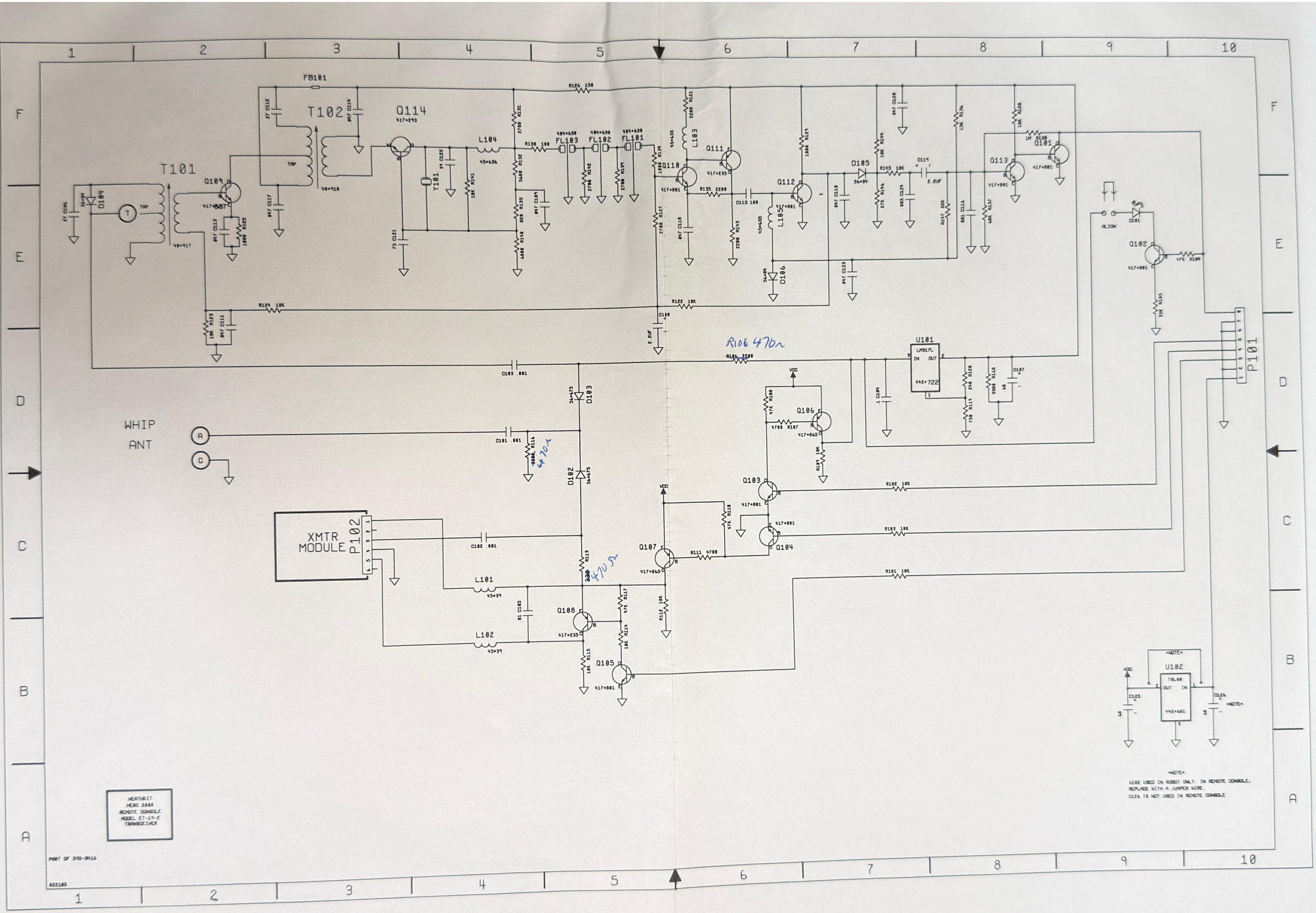
U536
U537
U538
U539


P603
U601
FB601
351UH
235-229
473-32
Q613
Q601
U602A
U602B
P601
P604
P602
U605A
U605B
U603A
U603B
D615
D625
D614
D601
D616
D623
D624
M601
Q612
Q611
Q610
Q609
Q608
Q607
Q606
Q605
Q617
Q616
Q615
Q602
Q614
Q603
Q604
D612
D611
D610
D609
D608
D607
D606
D605
D621
D619
D620
D618
D602
D617
D603
D604
FLOAT
CHARGER
POWER
LBATT
SEND
VOICE
HEATHKIT
HERO 2000
MODEL ET-19
STATUS CIRCUIT BOARD
PART OF 595-3416


T1
BR-1
CHARGER CONTROL
IN
GND
OUT
U1
Q1
K1
ON LED
SW2
SW1
SW3
DEAD BATTERY
MANUAL
AUTO
2.5A
120 VOLT
WIRING
T1
110 VOLT
WIRING
T1
220 VOLT
WIRING
T1
240 VOLT
WIRING
T1
BLK/RED
BLK/WHT
BLK/GRN
BLK/YEL
BLK/GRY
BLK
RED
WHT
HEATHKIT
HERO 2000
MODEL ET-15
BATTERY CHARGER


P206
P204
P203
P205
P201
P202
KEYBRD
LCD
U201
U202
U203
U204
U205
Y201
RPT
D1
WAIT
RS-232
A1
TRANSDUCER
CONTRAST
R2
SW1
POWER
B1
B2
C1
CHARGER
D202
D203
D204
D205
D206
D207
D208
D209
D210
D211
D212
D213
Q201
Q202
Q203
Q204


FB101
T102
Q114
T101
Q109
L104
FL103
FL102
FL101
Q111
Q110
L103
Q112
D105
Q113
Q101
D104
D106
R124 10K
R122 10K
C116
2.2UF
R106 470Ω
R106 2200
U101
LM317L
IN OUT
442-722
C103 .001
D103
D102
WHIP
ANT
A
C
C101 .001
R114 4700, 470Ω
XMTR
MODULE
P102
P101
C102 .001
L101
L102
Q108
Q107
Q106
Q103
Q104
Q105
R113 330, 470Ω
R102 10K
R103 10K
R101 10K
D101
ALIGN
Q102
U102
78L08
OUT IN
442-401
C123
C124
NOTE
NOTE
U102 USED IN ROBOT ONLY. IN REMOTE CONSOLE, REPLACE WITH A JUMPER WIRE.
C124 IS NOT USED IN REMOTE CONSOLE
HEATHKIT
HERO 2000
REMOTE CONSOLE
MODEL RT-1A-2
TRANSCEIVER
PART OF 595-3414
822185